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June 16, 1999

VIA FEDERAL EXPRESS

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F.R.E. 408

Sherry L. Estes, Esq.
U.S. EPA, Region V
Office of Regional Counsel
CS-3T
77 West Jackson Blvd.
Chicago, Illinois 60604-3590

RE: Site: Skinner Landfill
Client: Morton International, Inc.
Matter: De Minimis Settlement

Dear Sherry:

As I mentioned in my May 13, 1999 letter to you, Morton International, Inc. ("Morton") entered into a de minimis settlement agreement earlier this year with the other plaintiffs in the Skinner Landfill private cost recovery action in the United States District Court for the Southern District of Ohio. The agreement requires certain of the plaintiffs to seek to negotiate a de minimis settlement between Morton and the United States (on behalf of the U.S. Environmental Protection Agency ("EPA")) that is at least as protective of the company's interests as are the terms of EPA's Model De Minimis Consent Decree set forth in the December 7, 1995 Federal Register.

It is Morton's understanding that EPA, Region V, has now determined what information it will require in order to determine that Morton qualifies for a de minimis settlement at the Site. That information consists of: (i) the summary of each de minimis settlor's waste-in and volume percentage share of the Site costs, as determined by the allocator in the Final Allocation Report from the Skinner Alternative Dispute Resolution process, and (ii) the narrative description of the Allocator's findings for each de minimis settlor, as set forth in the Preliminary Allocation Report and, where the Allocator supplemented or altered those findings in the Final Allocation Report, as set forth in the Final Allocation.

Accordingly, I am enclosing the information requested by EPA for Morton. I believe this information amply demonstrates that Morton is entitled to a de minimis settlement that is at least consistent with EPA's model de minimis settlement decree. Morton understands that EPA and the plaintiffs in the private cost recovery litigation will allocate among themselves the de minimis settlement monies. By making this de minimis settlement offer, Morton does not acknowledge any liability for response costs at the Skinner Site.

In order to ensure that Morton is able to avoid the incurrence of additional transaction costs in connection with the ongoing Skinner cost recovery litigation, Morton strongly urges EPA to finalize an appropriate de minimis settlement as expeditiously as possible. Such timely action would fulfill the statutory objectives of Section 122(g) of CERCLA and EPA's de minimis settlement policies, as well as provide needed funds for future response actions at the Skinner Site. In evaluating Morton's de minimis offer, we also trust that the Agency will consider Morton's history of cooperation at the Skinner Site by implementing (with the plaintiffs) two separate response actions despite Morton's de minimis status.

Sincerely,

Laura A. Ringenbach

Laura A. Ringenbach

LAR:maw
Enclosures

Morton International

Settlement Amount: $12,673.47 (to be credited against payments of past costs)

Excerpt from Allocator's Preliminary Report:

Morton International, Inc. d/b/a Cincinnati Milacron Chem., Inc. conducted manufacturing of specialty chemicals. Products manufactured include: bistearamide waxes (used as plastic lubricants), sulchors (sulfur chlorinated fats and oils), sulfur bases used as oil additives (sulfurized natural fats and oils), mixtures of aliphatic polyamines (used as asphalt additives or road binding compounds), optical brighteners soluble base oils (used in metal cutting coolants industry); thiodipropriantes (antioxidants for the plastic industry), edible esters (food additives), thioglycolate esters (used as intermediates for organic PVC heat stabilizers), organotin mercaptides (used as PVC heat stabilizers), and ultraviolet light absorbers (used in the plastic industry). This facility operated until mid-1980. Predecessors associated with activities during various time frames are Carlisle Chemical Works, Inc.; Cincinnati Milacron Chemical, Inc.; Thiokol/Carstab Corporation; and Morton Thiokol, Inc. (Carstab Division).

The link to the Skinner Site derived from the excavation of a neutralization pit at the facility in 1974 by Albert Skinner. As part of its production process, Cincinnati Milacron utilized dolomite rock to neutralize the facility's acidic effluent (consisting primarily of dilute concentrations of sulfuric acid and hydrochloric acid). Dolomite rock is a composition of calcium carbonate and magnesium carbonate. Morton was kind enough to actually send me samples of dolomite rock which I promise to return even though I was not asked to do so.

Morton attempted to estimate what kinds of materials reached the neutralization pit. Using 1979 information (five years after the pit was dredged by Albert Skinner), Morton said that in addition to dilute hydrochloric (910 gallons per day) and sulfuric (11 gallons per day) acids, the effluent being neutralized also contained small amounts of the following: methanol (31 gallons per day), benzoic acid (3 gallons per day), resorcinol (6 gallons per day), C-700-I (2-4-Dihydroxy Benzophenone) (less than 1 gallon per day), Methyl benzoate (less than one gallon per day) and trace amounts of:

Di-isobutyl Ketone
n-Octylchloride
B-Methyul Belliferone
4-Methyl-7-Diethylaminocoumarin
Isopropyl Alcohol and 2-4 Diydroxy Bnenzophenone, and
Soluble oils.

Morton then explained the fate of chemicals in the pit environment.

Hydrogen sulfide — Has a boiling point of minus 60.3 degrees Celsius and is normally gas. It is very soluble in water and evaporates readily. Material remaining in the soil and water are subject to degradation by microorganisms that are involved in oxidation/reduction reactions, which oxidizes hydrogen sulfide to elemental sulfur. It was not expected to remain in material excavated from the pit.

Acrylonitrile	Is normally a liquid but is highly volatile. When released into atmosphere it will degrade primarily by reacting with photocnemically produced hydroxyl radicals. The half life for this process is 3.5 sunlit days and somewhat longer for cloudier days. When released in wastewater, it will slowly evaporate from the surface (half life 1-6 days) and biodegrade in about 1 week. Water can also react with acrylonitrile in the presence of a catalyst such as clay surfaces. It was not expected to remain in material excavated from the pit.
Ammonia	In water would normally cause an increase in the pH in the form of hydroxide ions and under normal conditions (aerobic) it is rapidly converted to nitrate nitrification. In theory, ammonia was present and neutralized by the acids forming water soluble ammonium chloride and/or ammonium sulfate. It was not expected to remain in material excavated from the pit.
Ammonium chloride	Is water soluble. If present in the pit, it would be in the water solution and would not be expected to be present in material excavated from the neutralization pit.
Methanol	Is normally a liquid at ambient temperature, but it is very volatile. When released to the atmosphere it degrades by reacting with photochemically produced hydroxyl radicals. The degradation process has a half-life of about 17.8 days. When released in waste water it has the potential to significantly biodegrade under proper conditions. It slowly evaporates from the water surface and has a half-life of 4.8 to 51.7 days depending on the depth of the waste water and the ambient air and water conditions. Aquatic hydrolysis, oxidations, photolysis, and absorption to sediment are not significant. It was not expected to remain in material excavated from the pit.
Benzoic acid and benzotrichloride	Benzotrichloride is normally a liquid at ambient temperature, but can exist in a vapor state. With moisture, benzotrichloride hydrolyzes forms benzoic acid and hydrochloric acid. When released to the atmosphere benzotrichloride degrades by reacting with photochemically produced hydroxyl radicals. The process has a half-life of 45 days. Benzoic acid degrades by reacting with photochemically produced hydroxyl radicals. When released in waste water, benzotrichlorides hydrolyze to form benzoic acid and hydrochloric acid. The hydrolysis has a half-life of about .18 to 3 seconds. Benzoic acids formed should biodegrade with a half-life of .2 to 3.6 days. Volatilization, adsorption to sediment and photolysis are not significant for these two chemicals. They were not expected to remain in material excavated from pit.
Resorcinol	Is normally a solid at ambient temperature, but can exist in a vapor state. It is readily soluble in water and alcohol. When released to the atmosphere, it degrades by reacting with

photochemically produced hydroxyl radicals during the day and nitrate radicals at night. This process has a half life of about 1 9 hours. When released in waste water, it is readily biodegradable where it may react rapidly in water with photochemically produced hydroxyl and peroxy radicals. The degradation process has a half-life of 19.2 to 100 hours of sunlight. It can be expected to be leachable in soil, but under proper conditions (rapid concurrent biodegradation) and because it is readily biodegradable, absorption to sediments would not be significant.

Dimethylformamide (DMF) — Is a widely used liquid organic solvent and is expected to biodegrade rapidly in the environment and be highly mobile in the soil. In aquatic systems, it is not expected to partition from the water column to organic matter contained in sediments and suspended soils. It was projected that DMF would have remained in the water in the neutralization pit with little, if any, remaining in the material excavated from the pit.

Morton submitted an affidavit of Franklin L., Mink, Ph.D. who advised me that benzoic acid is the only "contaminant of concern" detected at the Skinner Site that was "potentially attributable" to Morton. Dr. Franklin added that benzoic acid in a "free state" or in the form of "simple derivatives such as salts, esters and amides is widely distributed in nature."

Numbers of Loads. There were nine separate shipments from October 23 to November 2, 1974, shown on Skinner invoices related to the excavation project. The total amount of material removed was 42 truck loads, Morton agrees solely for the purposes of this ADR proceeding (although that is what the Skinner invoice said). Also for purposes of this proceeding, Morton does not contest the conclusion that the material was taken to the Skinner Site although it noted that the invoices do not show the disposal location (they say disposal "at landfill.")

Transporters Used. Morton identified these haulers from an historic records review which it conducted: Chemical Leaman Tank Lines, Inc.; B&O/Conrail; Maxwell Co; Rumpke Waste; David Hirschberg Co.; and John F. Bushelman Construction. Co.

Morton explained that it used B&O/Conrail, Chemical Leaman Tank Lines, and the Maxwell Co. to transport its manufactured products to its customers or to return raw materials to the supplier when they could not be used. From time to time the David Hirschberg Steel Co. purchased scrap metal from the Morton facility. Chemical Leaman and Maxwell were used exclusively to ship Morton's products to its customers. B&O/Conrail transported raw materials to the facility by rail. Documents on these entities were located for the following years except 1978: Chemical Leaman, 1977 - 1985: Maxwell, 1977 - 1989, B&O/Conrail: 1977 - 1989.

The historical records for waste haulers, to the extent they exist and depending on the hauler, dated back to 1969. Rumpke provided trash removal services from 1978 - 1989 with no records found for 1979 and 1980, Morton said. Trash removed included scrap wood and wood pallets, empty fiber drums, paper and office trash, cafeteria and vending machine trash,

discarded cardboard containers and other general trash that could be accepted at Rumpke's sanitary landfill. There were several shipments via Rumpke in 1972 which were documented to have been disposed of at a Kentucky disposal facility. On July 28, 1980, Rumpke removed rock and soil from a neutralization pit, refilled and regraded the area, and disposed of the material, Morton added.

Through Rumpke, drums were sent out for recycling to Queen City Barrel and/or possibly other local drum reclaimers. Normally materials including items such as solvents were purchased in 55 gallon drums. All empty drums were handled the same regardless of contents.

During periods in which Morton used Rumpke, it disposed of the following wastes in the following manner:

1. Absorbents used to clean up small spills were usually added to the filter press cake containers and handled with these routinely generated streams. Typically, rags were dropped into the boxes or drums used for the press cake. These boxes or drums were disposed of by West and Sons. In the 1980s these boxes or drums of filter cake were disposed of in the same manner as hazardous waste.

2. Oil was purchased in drums from various suppliers and the cost included a deposit on the drums. Hence, the empty oil drums were returned to the suppliers when new material was delivered. Used oil was collected and sent back to the suppliers for recovery.

3. Morton generally used paint contractors for significant painting as this was not a routine operation. The contractors were required to take empty and partial paint containers with them when they completed the job and left the facility.

Morton said that plant trash in the late 1960s or early 70s may have been hauled by an individual named Drucks (spelled phonetically). This material may have been taken to the City of Reading disposal facility or the City of Cincinnati disposal facility or incinerators.

During the early and mid 1970s some material was transported by Seymour Manufacturing, Inc. and West and Sons. The records for Seymour Manufacturing were utilized by a CERCLA remediation group when the Seymour site was remediated during the early 1980s. West & Sons records were and are being utilized in a similar action involving a site in central Kentucky.

The Morton facility has two railroad sidings on its property totaling about 930 feet in length. The longer one is about 740 feet long and the shorter one is about 195 feet long. This footage is the portion maintained by Morton. The shorter siding was used primarily for, and continues to be used for, on track storage. In the 1960, 1970s and 1980s, switching into and out of the facility was done about two to three times a week. Morton used Newberry Construction Co. to provide periodic gauging to the tracks and repair including replacement of ties, ballast, and crossing points.

Newberry's services were used sporadically from 1969 until 1990. Because Newberry performed repair services, Morton has no reason to believe that asbestos-containing materials, insulation, metal piping, tanks or containers, painted wall board, or paint thinner or

waste oil would have been present if such materials were taken off the site and disposed of by Newberry. Morton has no documents substantiating that Newberry took any material from Morton's facility directly or indirectly to Skinner. The invoices provided do not reference any disposal charges, tipping fees, nor do they have any reference to any landfill, including Skinner. Morton doesn't know if any "demolition debris" was taken off-site by Newberry Construction nor whether such material was sent to the Skinner Site. It argued that a latter conclusion would amount to speculation. Morton added that Plant Engineer, C.L. Adam, recalled that Newberry never disposed of waste but left removed and/or unused gravel and other repair materials on site. Railroad ties removed from the track were stockpiled and re-used on Morton's facility in a newly constructed drum storage area in 1969.

In the 60s and 70s and into the 80s there was heavy usage of drums for purchased raw materials and for storage of intermediate products and by-products. The empty drums were reused and this was done by storing them in stacks horizontally on graveled areas. The railroad ties were used to keep the piled drums from rolling, i.e. the ties served as curbs at each end of the stacks of empty drums. Both new and used railroad ties and sections of railroad ties were utilized for this purpose. It is C.L. Adams' recollection that Cincinnati Milacron may have even purchased railroad ties from Newberry for this use.

With respect to John Bushelman, Morton explained that it located minimal records of the purchase of services from John Bushelman. There were employee recollections that Bushelman may have provided excavation work for construction or possibly hoisting or bulldozing services. However, the employees recalling this may have confused John Bushelman with a retail firm called Bushelman Supply in Woodlawn, from which Morton obtained some materials. Morton believed that John Bushelman provided excavation in the early 1990s for installation of a pH neutralization system. This work would have been carried out under a subcontract from the general contractor. For this particular project the excavated material was taken off site by Republic Environmental via open drop boxes.

Site Witnesses. There was no testimony on Milacron or Morton. Elsa Skinner testified that Carlisle Chemical was a customer five or six times with a pretty good sized vehicle (30 cys, she said) but she could not say when the Site was used, or what material was deposited. E. Skinner Depo., p. 255. Morton argues that there are a number of other companies with the name "Carlisle" in the Cincinnati telephone directories and that this testimony is insufficient to establish a site nexus.

Skinner Log. The log recorded an entry that matches the invoices produced by Morton for the total amount due for the services rendered ($3,050), $1,260 of which was for disposal. The size of the loads is not shown on the invoices.

Waste-in Amount. With respect to the 42 loads, I am assuming that they were 11 cys each, or 462 cys. I picked 11 cys primarily based on Ray Skinner's discussions of the capacities of dump trucks, including his brother's (10-12 cys). Ray Skinner Depo., p. 786.

With respect to Elsa Skinner's testimony, this is another situation where there is, at least, a disputed issue of fact that could only be resolved at a trial. I cannot simply ignore the testimony which, in effect, Morton has asked me to do. In lieu of that, and considering the waste-in amount for Morton as a whole, I have decided to assign Morton three loads at 30 cys each to address this testimony. I am assuming these loads represent a solid waste with minimal toxicity.

I am not assigning Morton a waste-in amount because of Newberry's use of the Site or in relation to Rumpke.

Hence, Morton's total waste-in amount is 552 cys.

Chem-Dyne. Morton agreed to a .95% share of the response costs in the Chem-Dyne Site. The payment resulted from waste from a herbicide manufactured by Morton and a single cylinder of triisobutyl aluminum. The volume of this material was not provided by Morton. Nor did Morton explain when it dealt with Chem-Dyne. Instead, Morton argued that the indicator chemicals of these materials (1,2-dimethyl-3,5-diphenyl-1-h-pyrazolium methylsulfate in the case of the herbicide and triisobutyl aluminum) were not detected by EPA at the Skinner site. Therefore, Morton argued, it could have no liability for any transshipment that may have occurred between the Chem-Dyne and Skinner facilities. I cannot determine whether EPA even sampled for these chemicals, but I deal with the Chem-Dyne matter separately in the main body of the report.

Final Allocation Recommendations in Alphabetical Order, Skinner Landfill Superfund Site, April 12, 1999

Name Of Party	Solid Waste in Cys	Liquid Waste in Gallons	Solid Waste In Total Cys 372906	Percentage	Liquid Waste In Total Gallons 282252	Percentage	Solid Waste	Liquid Waste	Owner/ Operator & Part of Chem-Dyne	Rest of Chem-Dyne	Total
MORTON INTERNATIONAL	552	0		0.1480%		0.0000%	0.01%	0.00%			0.01480%